

## HIGH-SPEED STEEL FOR END MILL

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**- European:**

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### Abstract of JP5163563

**PURPOSE:** To obtain a high-speed steel for the end mill excellent in durable machinability with the surface hardness controlled to  $\geq 900\text{HV}$  and the core hardness to  $\geq 60\text{HRC}$ .

**CONSTITUTION:** Carbon is infiltrated and diffused into the surface of a high-speed steel contg. 0.4-0.8 by weight of C,  $\leq 1.0\%$  Si,  $\leq 1.0\%$  Mn, 3.0-5.0% Cr, 5.0-10.0% Mo, 2.0-10.0% W, 2.5-4.0% V, 7.0-10.0% Co and the balance iron and inevitable impurities and fulfilling  $W+2Mo=18$  to 22%. The steel is further hardened and tempered. Consequently, the steel has a carburized layer of at least 1mm thickness, and the surface hardness is controlled to  $\geq 900\text{HV}$  and the core hardness to  $\geq 60\text{HRC}$ .

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